

High Density Metal Oxide Fillers in Rubber Compounds

Abstract

5 The use of high density metal oxide fillers in vulcanizable rubber
compounds is disclosed. The use of the fillers reduce or eliminate the need for
conventional fillers, such as carbon black or silica, because viscoelastic
performance properties of vulcanized rubber compounds with high density
metal oxide fillers therein predict improved wet traction and rolling resistance,
two key factors in the use of rubber compounds as vehicle tire treads. Methods
10 of making and using such rubber compounds are also disclosed.